

Systematic review of organization stressors as predictors for job stress and burnout among university academicians in Malaysia

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ABSTRACT

Background: Job stress and burnout were alarming in tertiary education sector. The aim of this systematic review to reveal up-to-date profile of job stress and its organizational stressor among university academicians in Malaysia based on published articles from 2000 until 2016.

Materials and Methods: A systematic search of articles published between January 2000 and October 2016 was conducted in several databases (ISI Web of Knowledge, PubMed, Scopus and Ovid Medline, Google scholar).

Result: 7 studies met the inclusion criteria and were included in the review. Organizational stressors' predictors for job stress among academicians were stressors intrinsic job, role in organization, organization structure and climate, career development and relation at work.

Conclusion: The review revealing organizational stressors as major predictors for job stress and burnout among academicians in Malaysia. The knowledge opens for intervention and prevention measures to be strategized via organization and individual level for further formulation of complete job stress prevention model among academicians in Malaysia.

Keywords: job stress, burnout, organizational stressors, predictors, Malaysia.

1.0 Introduction

“Job stress an epidemic in the 21st century” [1]. Job stress has been the main concern in modern occupational safety and health sector. Job stress also prove to be at alarming state as nearly half million employees suffering from job stress in Great Britain alone [2]. It also immediately becomes an economic burden towards organizations, in example; United Kingdom’s industries have lost 9.9 million of working days attributed by job stress in forms of absenteeism, sickness, and reduced productivity. In United States, the cost of job stress estimated around 300 billion per annum [3].

Job stress was defined as the “psychological discomfort or tension” that results from exposure to organizational stressors in the workplace environment [4], and burnout was defined as the subjective experience that results from chronic stressors from the workplace and is characterized by feelings of exhaustion, cynicism, detachment, ineffectiveness and a personal lack of accomplishment [5]. Job stress has affecting majority of work sectors. Education sector has been reported to be higher in term of rates of job stress [2]. Academician or sometimes refer as academic staff or lecturer is an employee who work in university with multiple roles such as being a teacher, clinician, researcher, student supervisor and even administrator. University management has been demanding for changing of internal and external working environment, which has increasing academicians workloads and fears concerning job security or stability. Workers are often faced “unmatched” job demand and job control, hence difficulties to cope with the job stressors.

“As academician is the expertise whose discussing regarding job stress through articles and scientific studies [6], they are unfortunately listed as one of the top six of the most stressful jobs along with the police, ambulance driver, call operator, correctional officers and social service officer [7]”.

A systematic review by Watts et al. [8] on burnout among academicians concluded that burnout and job stress by university academicians were comparable with health care personnel. The impact of job stress experienced by academicians was highly significant as not only the educators themselves sustaining the effect but also the students under their supervision [9]. The increasing number of public and private universities in Malaysia for past two decades has evolved new challenge towards tertiary education system as universities were competing with each other to get a better rank in achieving an excellent university in the country, and indirectly pressuring the academic staff to speed up their performance in order to reach this ultimate goal.

Previous systematic reviews [8,10] revealed that job stress research only look for job content/context and individual factors as the source of stress. So, this review uniquely looks for organizational stressors, which have been the main predictors for job stress in Malaysia [11]. The aim of this systematic review to reveal, up-to-date profile of “job stress and its predictors (organizational stressors)” among tertiary educators in Malaysian workers based on published articles for the past 16 years.

2.0 Materials and Methods

2.1 Literature search

We performed systematic search for relevant published articles in between year 2000 till 2016 from four major search engines namely ISI Web of Knowledge, PubMed, Scopus and Ovid Medline, and Google scholar. This study did not involve living subjects hence it did not require Research Ethics Board review. We restricted the retrieval to articles published from year 2000 until 2016 in order to yield the most current studies. We used the PRISMA checklist [12], for the workflow of our publications search (Figure 1). We included to the number of our initial search the references used by the retrieved articles. The keywords that we used were:

“work stress” OR “occupational stress” OR “job stress” OR “burnout”

AND

“lecturer” OR “academician” OR “tertiary educators”

AND

“organization” OR “work-related”

AND

“stressors” OR “factors” OR “predictors” OR “causes”

AND

“Malaysia”

The studies identified from the database searches were screened via: (a) diagnosis of stress or burnout using a validated measure, (b) description of the organizational stressors correlates of job stress or burnout (with or without a validated measure), (c) study sample of tertiary educators, (d) the studies were done in Malaysia.

Studies were excluded on the basis of (a) lack of empirical data (eg: no correlation analysis of stressors-stress), (b) only focus on description of non-organizational correlations with stress, for example studies only examining the relationship between socio-demographic characteristics and stress or non-organization stressor with stress. Studies were also excluded if they used a sample of multiple sample population (eg: primary, secondary educators) and not analyzing the exclusive subpopulation.

Article’s titles were screened according to the eligibility criteria, relevant abstracts were retrieved and screened using the same criteria. Full-text articles subsequently retrieved and evaluated based via inclusion and exclusion criteria. Total of five electronic database searches revealed a total number of 44 articles for examination, excluding duplicates.

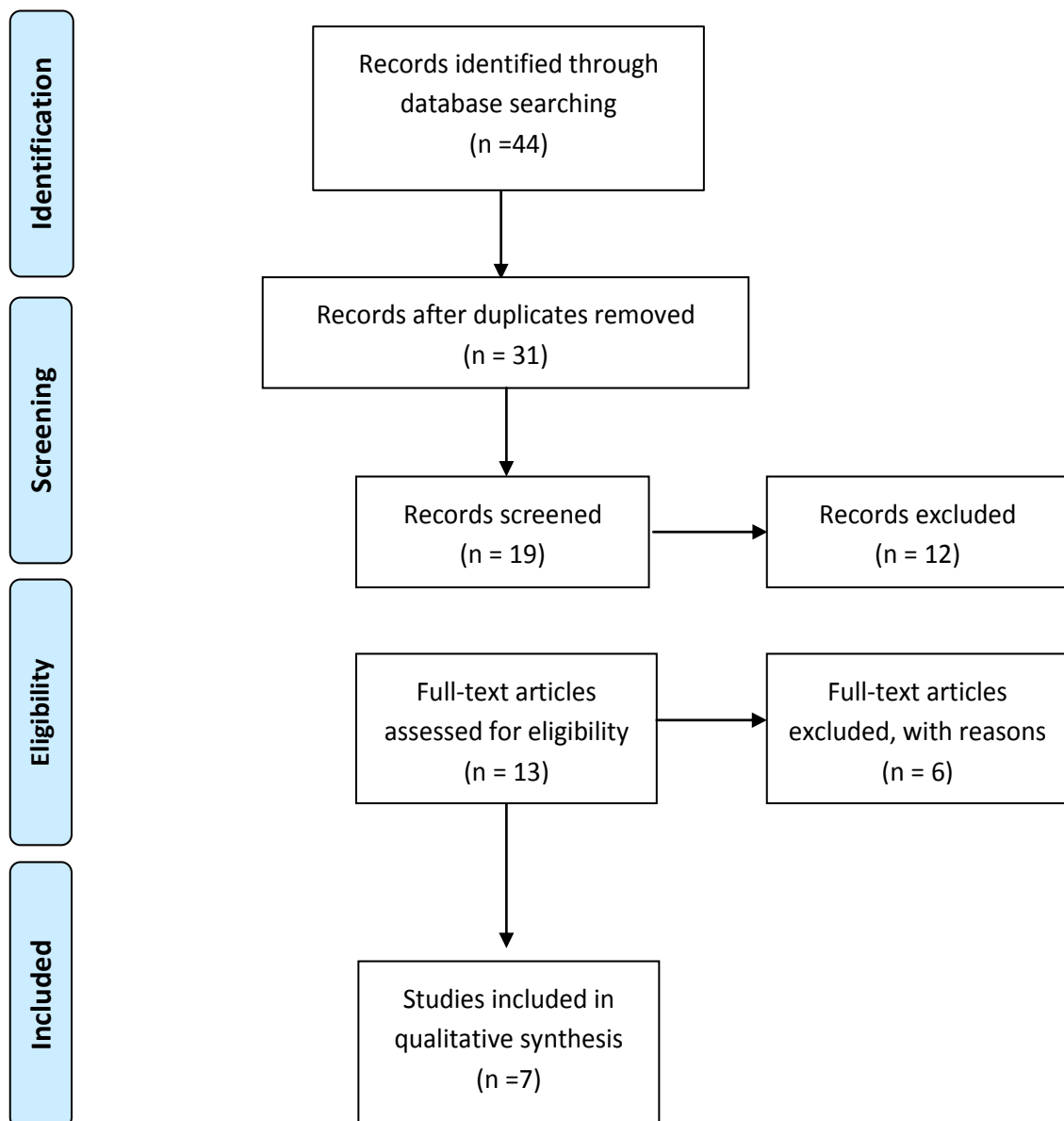


Figure 1: Process of articles selection

Table 1: Characteristic of included studies

Authors	Sample(n)/ population	Study design	Tools	Stressors as predictors [Stressor's category] ^[4]	Outcome
Huda et al. 2004 [16]	n=73, Medical lecturers in Universiti Sains Malaysia	Cross-sectional	Adopted Job Content Questionnaires by Karasek 1997	psychological stressors created skill working in clinical-based department [Stressors intrinsic to job]	Job stress
Ahsan et al. 2009 [17]	n=203, Academicians in public university in Klang Valley	Cross-sectional	Adopted Job Stress Questionnaire (Caplan et al. 1975)	workload pressure role ambiguity performance pressure. [Stressors intrinsic to job, Role in organization]	Job stress Job satisfaction
Triantoro al. 2011 [18]	n=104, Academicians in a university in Pahang	Cross-sectional	Developed Job Stress Scale (JSS)	leadership practices [Organization structure and climate]	Job stress
Kamel 2011 [19]	n=202 (two wave pair), Academicians in 5 public university in Malaysia	Two wave longitudinal (6 month time lag)	Adopted role overload item from Quantitative Workload Inventory (Spector and Jex 1998) Adopted role ambiguity item by Rizzo, House, and Lirtzman 1970 Adopted role conflict item by Rizzo et al.1970	role overload role ambiguity [Role in organization]	Job stress

			Adopted strain item from General Health Questionnaire by Goldberg 1978		
Panatik et al. 2012 [20]	n=267, academician from UTM,USM,UKM.	Cross-sectional	Adopted UK Health and Safety Executive's Management Standard Work-Related Stress scale 2008	job demand Job control violence relationship role clarity role change [Stressors intrinsic to job, Relationship at work]	job stress turnover intension job satisfaction
Chen et al. 2014 [21]	n=229, Academician from private university in Klang Valley	Cross-sectional	Maslach Burnout Inventory – Educators Survey	working condition [Organization structure and climate]	Burnout Job satisfaction Quality of life
Arma & Nor Hassim 2016 [22]	n=308, Academician in a public research university in Klang Valley	Cross-sectional	Work Related Quality of Life (WRQoL) Stress Source Questionnaire (SSQ) by Archibong 2010 Depression, Anxiety and Stress Scale-21 (DASS-21)	career development teaching research [Stressors intrinsic to job, Career development]	job stress

2.2 *Stressor classification system*

The popular organization stressors classification was conceptualized by Cooper and Marshall's (1976), which yielded five main classifications of organization stressors. These categories of organization stressors have been used to descriptively determine types of organizational stressors in the past literature on occupational stress [13-15]. The five categories of work stressors in Cooper and Marshall's model are **a) stressors intrinsic to the job, b) role in the organization, c) career development, d) relationship at work and e) organizational structure and climate** [4].

3.0 Result

3.1 *Characteristics of included studies*

This systematic review included studies from 2000 to 2016. As methodological statement earlier, all the studies are from Malaysia. Seven included studies were observational type with seven of them were cross-sectional studies and only one appear to be longitudinal study design. The samples of these studies were mainly consisting of public and private university educators. The sample size ranging from n=73 to n=267. The study instruments use to measure level of job stress and its stressors were also varies. Most of the studies adopting pre-existing job stress scale and only two study developing new questionnaire. Table 1 outlines the organizational stressors examined by each of the seven included studies.

3.2 *Predictors of job stress*

3.2.1 *Stressors intrinsic to job*

Stressor intrinsic to job describes factors that increase the difficulty and complexity of the duties that workers. In addition, this category also describes the factors that make a workload too heavy for the employee to handle [4]. Four of the studies significantly demonstrate stressors intrinsic to job associated with job stress. The stressors identified in this category were work overload, job control and working in clinical-based department. Ahsan et al. (2009) finds that workload pressure is the highest predictor of job stress compared to other variables. In the other hand, Panatik et al. (2012) finds that job demand and job control has significantly becoming job stress indicators in three research universities in Malaysia. This also further supported by Huda et al. (2004) which demonstrated job demand and job control as significant predictors with a more specific stressors such as working in clinical department and job created skills as the predictors of job stress. The specific stressors intrinsic to job measured by Arma & Nor Hassim (2016) revealed that academicians in research university were having significant job stress due to teaching and research task.

3.2.2 *Role in organization*

Two of the included studies demonstrate that role organization were associated with job stress. The stressors identified in this category were: role ambiguity, role overload and role change. Kamel (2011) is a good study to demonstrate the effects of role in organization as the research questions is focus towards the effects of three role stressors (role ambiguity, role overload and role conflicts) over time in predicting psychological strain. It is a longitudinal study with six-month time lag which using three specific tools in measuring those three role

stressors (role ambiguity item by Rizzo, House, and Lirtzman 1970, role overload item from Quantitative Workload Inventory by Spector and Jex 1998, role conflict item by Rizzo et al. 1970). The results reveal that role overload and role ambiguity predicts job strain over six-month period. In the other study by Ahsan et al. (2009), measurement of role ambiguity using Job Stress Questionnaire by Caplan et al. 1975 actually demonstrated role ambiguity as forth-best predictor for job stress, after workload pressure, home-work interface and performance pressure.

3.2.3 Organization structure and climate

Two of the included studies proved that organization structure and climate were associated predictors for job stress. The stressors identified in this category were leadership practices and also working conditions. Study by Triantoro et al. (2011) has specifically analyzing the leadership practices such as challenging, enabling, inspiring, and encouraging with job stress dimension in terms of behavioral, cognitive, psychological and emotional responses via structural equation modeling (SEM). It is demonstrated that challenging leadership practice has yield significant job stress response among academicians in a public university in Pahang. Chen et al. (2014) in the other hand, finds that perceived poor working by workers is a predictor for job stress among academician in a private university in Klang Valley.

3.2.4 Relationship at work

Panatik et al. (2012) is the only study measuring this variable. The study demonstrated that violence relationship is also predictors of job stress. Although the violence relationship is not specific towards which party such colleague, supervisors, administrative staff or even students, it has prove that relationship at work is a stressors for academicians.

3.2.5 Career development

Study by Arma & Nor Hassim (2016) and Ahsan et al. (2009) has demonstrates that career development also act as predictor for job stress among university academician. It is specifically measures the performance pressure of academician in a public university in Klang Valley and proves that the variables were the second best predictors of job stress.

4.0 Discussion

Job stress among academicians is a serious treats as academician have the central functions in university student's achievement and quality of graduates produced. If academicians experienced too many stress in their work, and they cannot manage it effectively, it will compromise the quality of productivity and the students will experience negative impact [23-25]. It will develop a vicious cycles for job stress issues as graduates who entering workforce will have poor job resource and control but will be facing high job demand.

The results attained from this systematic review indicate that the stressor intrinsic to job had the most consistent relationship with job stress and burnout among academician in Malaysia. These stressors include: work overload, job control and working in clinical-based department, burden of teaching and research [16,17,20,22]. Cooper and Marshall's (1976) remaining four categories: organization structure and climate, role in organization, career development and

relationships at work has been also identified as academician stressors with lesser amount of evidence.

Stressors intrinsic to job as the highest stressors are not a surprising evidence to us. Previous systematic review of burnout among academicians [6] has stated that intrinsic job factors such as teaching and research has been the major predictors of job stress and burnout among academicians worldwide. Specifically, the high numbers of students especially postgraduates has strongly predicts burnout among university lecturers [6]. These indirectly have proved that "research" and "supervision" also highly attributes towards stress and burnout among academicians. It is also strongly correlates with "career development" as the main stressors in universities, as researches and publications were needed for professional development and promotion in universities. In Malaysia, National Higher Education Strategic Plan (NHESP) that was enacted in 2007 targeted at least three universities to be listed among the top 100 and one in the top 50 of world-renowned universities by 2020. The quantity and quality of research from Research University must reach at least 30%, and 10% of these research findings shall be commercialized [26]. Therefore, the promotions for academic staffs are based on the outcome of scientific research. These have been proved by Arma & Nor Hassim (2016), whereby career development is actually the highest job stressors among academician especially in research universities.

The other stressors such as role in organization, organization structure and climates and relationship at work were also been proved as predictors for job stress and burnout in Malaysia, whereby most of the studies demonstrates "multifactorial" stressor-stress relationship. This findings again consistence with previous job stress and burnout research review by Navarro & Mercedes (2010) which concluded that factors contributing to job stress in higher education are multifarious. In the previous review, among the most often mentioned stressors were low salaries and job insecurity, lack of resources, conflictive and ambiguous role, budget cuts, excessive weekly hours of work, little control over issues affecting tasks that are part of the job position, little opportunity to promote and control one's professional career, relationships with students, little social acknowledgement and reward for their professional labour, lack of time to respond to the work load [8].

The current systematic review recommends that academicians should know about work stressors and their impacts. This will enable them to take appropriate measures to minimize those stressors and also to design and redesign their jobs. The other suggestion is to improve communication between universities managers and employees in order to revise the stressors to intrinsic job such as burden of teaching and research whilst refinement in organizational structure and climate, role of academicians, career development, and academician relationship conflicts in universities to reduce the risk of job stress and burnout. We also are recommending Ministry of Higher Education in updating their existing repertoire to effectively design and framing policy to maximize the satisfaction level of the academicians. Subsequently, further research should examine the effectiveness of those interventions for reducing job stress and burnout among academicians.

5.0 Conclusion and recommendation

This review indicates that organizational stressors such as stressors intrinsic job, role in organization, organization structure and climate, career development and relation at work were associated with job stress and burnout among university academicians in Malaysia. With this knowledge in terms of organizational stressors as “modifiable factors”, it will give chance for intervention and prevention measures to be strategized via “organization” and “individual” approaches. Thus, subsequently formulating a complete model approach towards job stress prevention among academicians in Malaysia. Future research should continue to examine these stressors among academicians.

Conflicting interests

The authors declare that they have no conflicting interests pertaining to this study.

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Authors' contributions

Mohd Shaiful Azlan and Rosnah Ismail had the primary responsibility of analysis and interpretation of the data, and paper drafting. All authors read and approved the final manuscript.

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